## Minutes Climate Change Product Development Advisory Committee January 28, 2008 Teleconference

## Committee Members Participating:

Soroosh Sorooshian

Antonio J. Busalacchi, Jr.

David C. Bader

Curtis C. Covey

William J. Gutowski

Isaac M. Held

Henry D. Jacoby

Kenneth E. Kunkel

Richard S. Lindzen

Ronald L. Miller

William A. Pizer

William A. Pizer

Robin T. Tokmakian

Gary W. Yohe

Minghua H. Zhang

## Others Participating:

Anjuli Bamzai, Climate Change Research Division, Office of Biological and Environmental Research, Office of Science, USDOE Jane Leggett, Congressional Research Service, Library of Congress Frederick O'Hara, Oak Ridge Institute of Science and Engineering, CPDAC Recording Secretary

The meeting was called to order at 1:02 p.m. by Bamzai, who reviewed the background of the report, its preparation, review, and changes. The November meeting was canceled because the draft of the report was not ready for consideration by CPDAC. Since then, the lead-author team submitted the draft that is being considered for concurrence at today's meeting. After review and concurrence it will be forwarded to the Under Secretary's Office and thence to the CCSP for further clearances. CCSP will submit the final report to Congress. While maintaining scientific integrity, it is important that this report gets submitted in a timely manner.

Sorooshian noted that a few side discussions had been held with the writing team, and the report was distributed to the whole Advisory Committee when the writing team had completed its revisions. Bader was asked for feedback on the comments that the writing team had received.

Bader noted that his presentation picked up with what was done after the discussions that were held in August. There were very few public reviews or comments. Only minor changes were made to the majority of the text, based on the few public comments that were received.. Covey concurred; the comments were dealt with in a straightforward way. Bader said that because of the time required to revise Chapter 4 was substantial, revision, the author team did an internal review and . rewrote the whole document, incorporating the public-review comments in the process. Lindzen made extensive comments, and another Committee member, Brian Flannery, sent in additional comments. Most of these comments pertained to Chapter 4; all these comments were dealt with in the new draft. Only one comment was left as a "topic of active research." The other chapters were re-edited by the authors. The text was then copy edited and reread by the author team.

The use of climate models for climate change projections was seen as beyond the scope of this report because another report covers climate projections. The one exception was the discussion of downscaling, where the authors discuss the methodology of building downscaling tools (in Chapters 3 and 7) with control-run simulations and then applying those tools to projections of future change. This discussion was necessary because of the motivation for the methodological development and application of global model results for regional applications. However, no evaluation was made of the validity of future projections using this approach.

Chapter 7 has been expanded with information about the California Climate Assessment.

Some figures were redrawn, and tables were added. A significant reorganization has been carried out. About 50 pages of references still contain about 60 citations that are missing; these citations will be filled in by the authors. Some additional figures will need to be redrawn because of copyright issues.

Lindzen noted that contradictory statements are made in the report, and they should be made coherent. He has flagged these points. Sorooshian asserted that the authors will take care of these issues.

Covey stated that there should be a final copyediting. Yohe asked if all of these issues can be dealt with in one final pass-through. Sorooshian said that Lindzen has flagged a number of issues. These comments will be sent out to everyone. Busalacchi stated that all of these issues should be taken care of at one time. Sorooshian noted that there is nothing major to be dealt with. The quality just needs to be adjusted. Bader said that the author team will go over everything.

Jacoby asked if any of the models like MAGICC [Model for the Assessment of Greenhouse-gas Induced Climate Change] should be mentioned. Bader stated that, early on, the writing team decided not to include EMICs [Earth-system models of intermediate complexity], and the report states that at the beginning: they are mentioned on page 14, line 19.

Regarding changes to Chapter 4, Held pointed out that there was a general dissatisfaction with the discussions of climate sensitivity in the prior draft. The writing team worked hard on resolving this issue, giving more emphasis to tests of models that are thought to be relevant to the magnitude of projected climate change, including volcanic aerosols, climate variability, the 11-year solar cycle, paleoclimates, seasonal cycles, etc. The report only briefly discusses individual studies on climate-sensitivity constraints and provides instead summary status statements. The report points to studies that combine a number of these different constraints [as did the Intergovernmental Panel on Climate Change (IPCC)] as having particular merit. The author team now sees consistency in the narration on the spread of uncertainty. The point is now dealt with explicitly.

Sorooshian asked if there were any comments.

Lindzen noted that Chapter 4 is hugely better. His additional comments are minor. One place later in the report still glibly repeats the IPCC statements, and this text should be made consistent with the new version of Chapter 4. Held agreed that the writing team would take care of that task. Covey stated that he had written that portion of the report and he agreed that it is off-topic a little bit.

Yohe said that, in terms of how customers might view this report, the integrated-assessment community is now reviewing a paper on thick tails (of distributions) that might be referred to in this report. Held said that this topic is not highlighted, but it is dealt with to a certain degree in the text. Lindzen pointed out that various authors (Annan and Hargreaves in GRL 2006 or 2007, and M. Rodwell, T. N. Palmer, Q. J. R. Meteorol. Soc. 113, 118) have tried to eliminate the high values. Held stated that he thought that the writing team had had a reference to Annan and Hargreaves in the report in an earlier draft.

Yohe pointed out that the text talks about "high confidence" so that readers may be inclined to place a 10% likelihood of a climate sensitivity about 6 degrees and then misuse the statement. Bader said that the problem was where this report was to leave off and other reports were to take over. In his opinion, the discussion of confidence is beyond the scope of this report. Lindzen said that, in that case, a statement should be made to that effect. Pizer said that the issue is transferring historical model data and data from current models and using those data as input to the EMICs. Bader pointed out that all the models give good representations of the 20th century, but they were not designed to be used in a probabilistic framework. Covey stated people can always use the information presented in this report in unintended ways, but the report should stick to the topic at hand.

Sorooshian asked if there were any other comments on this issue. There were none. He said that the authors should just reference the next Synthesis and Assessment Product for more information.

Sorooshian asked if there were any other issues. None were raised. He said that the strategy outlined will be followed by the authors, and everyone will see a new copy again. Bader note – the revisions to Chapter 4 were in the last version. No further major changes are planned and none were discussed at the meeting. Approval of the report could be made at this point, assuming just minor and stylistic changes to be made. Bader was asked if the changes could be done in the next two weeks, and he agreed, with reservations.

Sorooshian opened the floor to public comment. There were no requests from the public to speak. Bamzai reported there were email requests from the public to have the minutes available. The weblink of the CPDAC webpage where the minutes will be put up has been provided.

Sorooshian moved that a conditional approval of the report be made. Busalacchi seconded. The motion was adopted unanimously.

Bamzai noted that an extension to the charter of the Advisory Committee and the terms of all the members had been requested.

Jacoby asked if this were the last task of this Advisory Committee. Bamzai answered affirmatively.

There being no other comments, the meeting was adjourned at 2:02 p.m.

Respectfully submitted, Frederick M. O'Hara, Jr. Recording Secretary Jan 30, 2008

Corrections and clarifications provided by:

Dave Bader, Curt Covey, Isaac Held, Gary Yohe, and Anjuli Bamzai Feb 5, 2008